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MILLIAM AS SMITH TOWNSLAD AND COMMSTAD CHOOSES AND CROW STERRET STOLET COMES NOTICE OF ALLOWANCE AND ISSUE FEE DUE

Note attached communication from the Examiner	ti T	1-1		
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☐ This notice is issued in view of applicant's communication filed -

SERIES CODE/SERIAL NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED	
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First Named Applicant FACTOR FOR		uru	MANE 44.		

TITLE OF

INVENTION DE MEGROPE DE DEGLERATION À LIBERDOCENTAL EXEMPLE OR TRANSCENTAL COMMINE FRANÇAIS 1985 : AMERICE DE

	ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
1	1 17/13 (H. 22)	405-372.	Japan H	50 HILL	T7 7E8	. \$6.75.00	छवः । अङ्ग

THE APPLICATION IDENTIFIES ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

## **HOW TO RESPOND TO THIS NOTICE:** .

- I. Review the SMALL ENTITY Status shown above. If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:
  - A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the patent and Trademark Office of the change in status, or
  - B. If the Status is the same, pay the FEE DUE shown above.
- If the SMALL ENTITY is shown as NO:
- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, pay of 1/2 the FEE DUE shown above.
- II. Part B of this notice should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B should be completed and returned. If you are charging the ISSUE FEE to your deposit account, Part C of this notice should also be completed and returned.
- III. All communications regarding this application must give series code (or filing date), serial number and batch number. Please direct all communication prior to issuance to Box ISSUE FEE unless advised to contrary.

IMPORTANT REMINDER: Patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.



DEBOER

FIRST NAMED APPLICANT

## UNITED STATES DEPARTMENT OF COMMERCE **Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

ATTORNEY DOCKET NO.

**EXAMINER** 18N2/1218 CROUCH, I: WILLIAM M. SMITH TOWNSEND AND TOWNSEND KHOURIE AND CREW ART UNIT STEUART STREET TOWER PAPER NUMBER ONE MARKET PLAZA, 20TH FLOOR SAN FRANCISCO CA 94105 1819 DATE MAILED: **NOTICE OF ALLOWABILITY** PART I, 1. This communication is responsive to Heartendreat fele & 9/17/96. 2. All the claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously melled), a Notice Of Allowance And Issue Fee Due or other appropriate communication will be sent in due course.
3. The allowed claims are 82,83,97-118,123, 125,126,128 and 129 reneworld as 1-29. 4. 

The drawings filed on ... . are acceptable. 5. 🗆 Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has [\_] been received. [\_] not been received. [...] been filed in parent application Serial No. 6. Note the attached Examiner's Amendment. 7. Note the attached Examiner Interview Summary Record, PTOL-413. (2) 8. Whote the attached Examiner's Statement of Reasons for Allowance. 9. Note the attached NOTICE OF REFERENCES CITED, PTO-892. 10. D Note the attached INFORMATION DISCLOSURE CITATION, PTO-1449. A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" indicated on this form. Failure to timely comply will result in the ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a). 1. 🗌 Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED. 2. The Applicant must make the drawing changes indicated below in the manner set forth on the reverse side OF THIS PAPER. a. D Drawing informalities are indicated on the NOTICE RE PATENT DRAWINGS, PTO-948, attached hereto or to Paper No.

CORRECTION IS REQUIRED. b.  $\square$  The proposed drawing correction filed on \_ has been approved by the examiner. CORRECTION IS

d. Format drawings are now REQUIRED.

Any response to this letter should include in the upper right hand corner, the following information from the NOTICE OF ALLOWANCE AND ISSUE FEE DUE: ISSUE BATCH NUMBER, DATE OF THE NOTICE OF ALLOWANCE, AND SERIAL NUMBER.

c.  $\square$  Approved drawing corrections are described by the examiner in the attached EXAMINER'S AMENDMENT. CORRECTION IS

Attachments: Examiner's Amendment

SERIAL NUMBER

08/154,019

FILING DATE

11/16/93

Examiner Interview Summary Record, PTOL- 413 (2)
Reasons for Allowance

Notice of References Cited, PTO-892

REQUIRED.

REQUIRED.

Information Disclosure Citation, PTO-1449

- Notice of Informal Application, PTO-152

\_ Notice re Patent Drawings, PTO-948

\_ Listing of Bonded Draftsmen

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Serial Number: 08/154,019

Art Unit: 1804

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. Authorization for this examiner's amendment was given in a telephone interview with Mr. Joe Liebescheutz on October 25, 1996.

1. Please re-write the following claims:

123. A method of producing a transgenic bovine, the method comprising:

obtaining an ovum from bovine ovaries;

maturing the ovum in vitro;

fertilizing the mature ovum in vitro to form a zygote;

introducing a transgene into the zygote in vitro;

maturing the zygote to a preimplantation stage embryo in vitro; and

transplanting the embryo into a recipient female bovine, wherein the female bovine

gestates the embryo to produce a transgenic bovine.

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129. The method of claim 123, further comprising mating said transgenic bovine to produce a transgenic bovine progeny.

125. The method of claim 123 or 129, wherein the transgene comprises, in operable association:

- a mammary gland specific promoter;
- a mammary gland specific enhancer;

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a DNA sequence encoding a signal sequence functional in bovine mammary secretory cells; and

a DNA sequence encoding a polypeptide of interest;

wherein the transgenic bovine or a female progeny of the transgenic bovine, expresses the transgene in the mammary secretory cells such that the polypeptide of interest is detectable in the milk of the transgenic bovine or female progeny of the transgenic bovine.

128. A method of producing a transgenic bovine embryo, the method comprising:

obtaining an ovum from bovine ovaries;

maturing the ovum in vitro;

fertilizing the mature ovum in vitro to form a zygote; and

introducing a transgene into the zygote, wherein the transgene integrates into the genome

of the zygote to form the transgenic bovine embryo

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The method of claim 123, wherein a plurality of ova are obtained from bovine ovaries, matured and fertilized *in vitro* to form a plurality of zygotes, and wherein in said introducing step said zygotes are substantially synchronous.

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The method of claim 106, wherein the polypeptide is a wild-type polypeptide or an allelic variant thereof.

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Art Unit: 1804

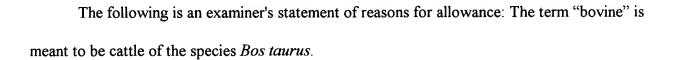
2. In claim 99, line 2, delete ":" after comprises.

3. In claims 107,108 and 117, line 2, delete "recombinant"

4. Cancel claims 1-28,41-53,55-72,74-81 and 84-95 without prejudice or disclaimer.

## 5. Delete the abstract, page 135, and insert the following abstract:

A method is disclosed for the production of a transgenic bovine or a transgenic bovine embryo comprising obtaining an ovum from bovine ovaries, maturing the ovum *in vitro*, fertilizing the mature ovum or ova *in vitro* to form a zygote, introducing a transgene into the zygote *in vitro* and maturing the zygote to a preimplantation stage embryo *in vitro*. To produce the transgenic bovine, the embryo is transplanted into a recipient female bovine, wherein the female bovine gestates the embryo to produce a transgenic bovine.



Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Serial Number: 08/154,019

Art Unit: 1804

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Crouch, Ph.D. whose telephone number is (703) 308-1126.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

DEBORAH CROUCH PATENT EXAMINER GROUP 1800

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Dr. D. Crouch October 25, 1996